

**DECLARATION FOR PATENT APPLICATION**

As a below named inventor, I declare that I believe I am an original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**62 HUMAN SECRETED PROTEINS**

the specification of which was filed on **October 10, 2000** as Application Serial No. **09/684,524**.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 C.F.R. § 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application, which designated at least one country other than the United States listed below, and have also identified below any foreign application for patent or inventor's certificate, or PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s):

<u>Priority Claimed</u>	
<u>Yes</u>	<u>No</u>

<u>(Number)</u>	<u>(Country)</u>	<u>(Day/Month/Year Filed)</u>
-----------------	------------------	-------------------------------

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below.

<u>60/128,693</u> <u>(Application Serial No.)</u>	<u>09 April 1999</u> <u>(Filing Date)</u>
<u>60/130,991</u> <u>(Application Serial No.)</u>	<u>26 April 1999</u> <u>(Filing Date)</u>

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s), or under § 365(b) of any PCT international application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information that is material to patentability as defined in 37 C.F.R. § 1.56 that became available between the filing date of the prior application and the national or PCT international filing date of this application.

<u>PCT/US00/08979</u> <u>(Application Serial No.)</u>	<u>06 April 2000</u> <u>(Filing Date)</u>	<u>Pending</u> <u>(Status: patented, pending, abandoned)</u>
----------------------------------------------------------	----------------------------------------------	-----------------------------------------------------------------

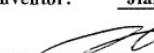
I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith: James H. Davis (Reg. No. 40,582), Kenley Hoover (Reg. No. 40,302), Joseph Kenny (Reg. No. 43,710), Jonathan L. Klein (Reg. No. 41,119), Michele Wales (Reg. No. 43,975), and Mark J. Hyman (Reg. No. 46,789) of Human Genome Sciences, Inc. 9410 Key West Avenue, Rockville, Maryland, 20878.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

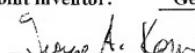
**Full name of first joint inventor:** Steven M. Ruben

Inventor's signature:  Date: 1/26/01  
Residence: 18528 Heritage Hills Drive, Olney, MD 20832 Citizenship: US  
Post Office Address: same as above

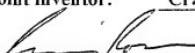
**Full name of additional joint inventor:** Jian Ni

Inventor's signature:  Date: 1/23/01  
Residence: 5502 Manorfield Road, Rockville, MD 20853 Citizenship: CN  
Post Office Address: same as above

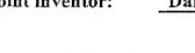
**Full name of additional joint inventor:** George Komatsoulis

Inventor's signature:  Date: 26 Jun 01  
Residence: 9518 Garwood Street, Silver Spring, MD 20901 Citizenship: US  
Post Office Address: same as above

**Full name of additional joint inventor:** Craig A. Rosen

Inventor's signature:  Date: 1/24/01  
Residence: 22400 Rolling Hills Lane, Laytonsville, MD 20882 Citizenship: US  
Post Office Address: same as above

**Full name of additional joint inventor:** Daniel R. Soppet

Inventor's signature:  Date: \_\_\_\_\_  
Residence: 15050 Stillfield Place, Centreville, VA 22020 Citizenship: US  
Post Office Address: same as above

Full name of additional joint inventor:

Yanggu Shi

Inventor's signature:

Date: 1/26/01  
Citizenship: CN

Residence: 437 West Side Drive, Apt. 102, Gaithersburg, MD 20878

Post Office Address: same as above

Full name of additional joint inventor:

David W. LaFleur

Inventor's signature:

Date: 1/26/01  
Citizenship: US

Residence: 3142 Quesada Street, N.W., Washington, DC 20015

Post Office Address: same as above

Full name of additional joint inventor:

Henrik Olsen

Inventor's signature:

Date: 1/26/01

Residence: 182 Kendrick Place, #24, Gaithersburg, MD 20878

Citizenship: DK

Post Office Address: same as above

Full name of additional joint inventor:

Reinhard Ebner

Inventor's signature:

Date: 1/26/01

Residence: 9906 Shelburne Terrace, #316, Gaithersburg, MD 20878

Citizenship: DE

Post Office Address: same as above

Full name of additional joint inventor:

Kimberly A. Florence

Inventor's signature:

Date: 1/26/01

Residence: 12805 Atlantic Avenue, Rockville, MD 20851

Citizenship: US

Post Office Address: same as above

Full name of additional joint inventor:

Paul A. Moore

Inventor's signature:

Date: 1/26/01

Residence: 19005 Leatherbark Drive, Germantown, MD 20874

Citizenship: UK

Post Office Address: same as above

Full name of additional joint inventor:

Charles E. Birse

Inventor's signature:

Date: 1/26/01

Residence: 13822 Saddleview Drive, North Potomac, MD 20878

Citizenship: GB/UK

Post Office Address: same as above

**Full name of additional joint inventor:** Paul Young

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: 122 Beckwith Street, Gaithersburg, MD 20878 Citizenship: US

Post Office Address: same as above

10050704.011802

**DECLARATION FOR PATENT APPLICATION**

As a below named inventor, I declare that I believe I am an original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**62 HUMAN SECRETED PROTEINS**

the specification of which was filed on **October 10, 2000** as Application Serial No. **09/684,524**.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 C.F.R. § 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application, which designated at least one country other than the United States listed below , and have also identified below any foreign application for patent or inventor's certificate , or PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s):

<u>Priority Claimed</u>	
Yes	No

(Number)	(Country)	(Day/Month/Year Filed)
----------	-----------	------------------------

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below.

60/128,693 (Application Serial No.)	09 April 1999 (Filing Date)
60/130,991 (Application Serial No.)	26 April 1999 (Filing Date)

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s), or under § 365(b) of any PCT international application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information that is material to patentability as defined in 37 C.F.R. § 1.56 that became available between the filing date of the prior application and the national or PCT international filing date of this application.

PCT/US00/08979 (Application Serial No.)	06 April 2000 (Filing Date)	Pending (Status: patented, pending, abandoned)
--------------------------------------------	--------------------------------	---------------------------------------------------

10050704-011802  
I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith: James H. Davis (Reg. No. 40,582), Kenley Hoover (Reg. No. 40,302), Joseph Kenny (Reg. No. 43,710), Jonathan L. Klein (Reg. No. 41,119), Michele Wales (Reg. No. 43,975), and Mark J. Hyman (Reg. No. 46,789) of Human Genome Sciences, Inc. 9410 Key West Avenue, Rockville, Maryland, 20878.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

**Full name of first joint inventor:** Steven M. Ruben

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Residence: 18528 Heritage Hills Drive, Olney, MD 20832 Citizenship: US  
Post Office Address: same as above

**Full name of additional joint inventor:** Jian Ni

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Residence: 5502 Manorfield Road, Rockville, MD 20853 Citizenship: CN  
Post Office Address: same as above

**Full name of additional joint inventor:** George Komatsoulis

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Residence: 9518 Garwood Street, Silver Spring, MD 20901 Citizenship: US  
Post Office Address: same as above

**Full name of additional joint inventor:** Craig A. Rosen

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Residence: 22400 Rolling Hills Lane, Laytonsville, MD 20882 Citizenship: US  
Post Office Address: same as above

**Full name of additional joint inventor:** Daniel R. Soppet

Inventor's signature: Daniel R. Soppet Date: 11/19/01  
Residence: 15050 Stillfield Place, Centreville, VA 22020 Citizenship: US  
Post Office Address: same as above

Full name of additional joint inventor:

Yanggu Shi

Inventor's signature:

Residence: 437 West Side Drive, Apt. 102, Gaithersburg, MD 20878

Date:

CN

Post Office Address:

same as above

Full name of additional joint inventor:

David W. LaFleur

Inventor's signature:

Residence: 3142 Quesada Street, N.W., Washington, DC 20015

Date:

US

Post Office Address:

same as above

Full name of additional joint inventor:

Henrik Olsen

Inventor's signature:

Residence: 182 Kendrick Place, #24, Gaithersburg, MD 20878

Date:

DK

Post Office Address:

same as above

Full name of additional joint inventor:

Reinhard Ebner

Inventor's signature:

Residence: 9906 Shelburne Terrace, #316, Gaithersburg, MD 20878

Date:

DE

Post Office Address:

same as above

Full name of additional joint inventor:

Kimberly A. Florence

Inventor's signature:

Residence: 12805 Atlantic Avenue, Rockville, MD 20851

Date:

US

Post Office Address:

same as above

Full name of additional joint inventor:

Paul A. Moore

Inventor's signature:

Residence: 19005 Leatherbark Drive, Germantown, MD 20874

Date:

UK

Post Office Address:

same as above

Full name of additional joint inventor:

Charles E. Birse

Inventor's signature:

Residence: 13822 Saddleview Drive, North Potomac, MD 20878

Date:

GB

Post Office Address:

same as above

**Full name of additional joint inventor:** Paul Young

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Residence: 122 Beckwith Street, Gaithersburg, MD 20878 Citizenship: US  
Post Office Address: same as above

10050704.011802

**DECLARATION FOR PATENT APPLICATION**

As a below named inventor, I declare that I believe I am an original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**62 HUMAN SECRETED PROTEINS**

the specification of which was filed on **October 10, 2000** as Application Serial No. **09/684,524**.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 C.F.R. § 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application, which designated at least one country other than the United States listed below, and have also identified below any foreign application for patent or inventor's certificate, or PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s):

<u>Priority Claimed</u>	
Yes	No

(Number)	(Country)	(Day/Month/Year Filed)
----------	-----------	------------------------

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below.

60/128,693 (Application Serial No.)	09 April 1999 (Filing Date)
60/130,991 (Application Serial No.)	26 April 1999 (Filing Date)

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s), or under § 365(b) of any PCT international application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information that is material to patentability as defined in 37 C.F.R. § 1.56 that became available between the filing date of the prior application and the national or PCT international filing date of this application.

PCT/US00/08979 (Application Serial No.)	06 April 2000 (Filing Date)	Pending (Status: patented, pending, abandoned)
--------------------------------------------	--------------------------------	---------------------------------------------------

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith: James H. Davis (Reg. No. 40,582), Kenley Hoover (Reg. No. 40,302), Joseph Kenny (Reg. No. 43,710), Jonathan L. Klein (Reg. No. 41,119), Michele Wales (Reg. No. 43,975), and Mark J. Hyman (Reg. No. 46,789) of Human Genome Sciences, Inc. 9410 Key West Avenue, Rockville, Maryland, 20878.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of first joint inventor: Steven M. Ruben

Inventor's signature:  
Residence: 18528 Heritage Hills Drive, Olney, MD 20832 Date: \_\_\_\_\_  
Citizenship: US  
Post Office Address: same as above

Full name of additional joint inventor: Jian Ni

Inventor's signature:  
Residence: 5502 Manorfield Road, Rockville, MD 20853 Date: \_\_\_\_\_  
Citizenship: CN  
Post Office Address: same as above

Full name of additional joint inventor: George Komatsoulis

Inventor's signature:  
Residence: 9518 Garwood Street, Silver Spring, MD 20901 Date: \_\_\_\_\_  
Citizenship: US  
Post Office Address: same as above

Full name of additional joint inventor: Craig A. Rosen

Inventor's signature:  
Residence: 22400 Rolling Hills Lane, Laytonsville, MD 20882 Date: \_\_\_\_\_  
Citizenship: US  
Post Office Address: same as above

Full name of additional joint inventor: Daniel R. Soppet

Inventor's signature:  
Residence: 15050 Stillfield Place, Centreville, VA 22020 Date: \_\_\_\_\_  
Citizenship: US  
Post Office Address: same as above

Full name of additional joint inventor:

Yanggu Shi

Inventor's signature:

Residence: 437 West Side Drive, Apt. 102, Gaithersburg, MD 20878

Date:

Citizenship: CN

Post Office Address:

same as above

Full name of additional joint inventor:

David W. LaFleur

Inventor's signature:

Residence: 3142 Quesada Street, N.W., Washington, DC 20015

Date:

Citizenship: US

Post Office Address:

same as above

Full name of additional joint inventor:

Henrik Olsen

Inventor's signature:

Residence: 182 Kendrick Place, #24, Gaithersburg, MD 20878

Date:

Citizenship: DK

Post Office Address:

same as above

Full name of additional joint inventor:

Reinhard Ebner

Inventor's signature:

Residence: 9906 Shelburne Terrace, #316, Gaithersburg, MD 20878

Date:

Citizenship: DE

Post Office Address:

same as above

Full name of additional joint inventor:

Kimberly A. Florence

Inventor's signature:

Residence: 12805 Atlantic Avenue, Rockville, MD 20851

Date:

Citizenship: US

Post Office Address:

same as above

Full name of additional joint inventor:

Paul A. Moore

Inventor's signature:

Residence: 19005 Leatherbark Drive, Germantown, MD 20874

Date:

Citizenship: UK

Post Office Address:

same as above

Full name of additional joint inventor:

Charles E. Birse

Inventor's signature:

Residence: 13822 Saddleview Drive, North Potomac, MD 20878

Date:

Citizenship: GB

Post Office Address:

same as above

Full name of additional joint inventor: Paul Young

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_

Residence: 122 Beckwith Street, Gaithersburg, MD 20878 Citizenship: US

Post Office Address: same as above

10050704.011802

**DECLARATION FOR PATENT APPLICATION**

As a below named inventor, I declare that I believe I am an original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled:

**62 HUMAN SECRETED PROTEINS**

the specification of which was filed on October 10, 2000 as Application Serial No. 09/684,524.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 C.F.R. § 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application, which designated at least one country other than the United States listed below, and have also identified below any foreign application for patent or inventor's certificate, or PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s):

<u>Priority Claimed</u>	
<u>Yes</u>	<u>No</u>

<u>(Number)</u>	<u>(Country)</u>	<u>(Day/Month/Year Filed)</u>
-----------------	------------------	-------------------------------

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below.

<u>60/128,693</u>	<u>09 April 1999</u>
<u>(Application Serial No.)</u>	<u>(Filing Date)</u>
<u>60/130,991</u>	<u>26 April 1999</u>
<u>(Application Serial No.)</u>	<u>(Filing Date)</u>

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s), or under § 365(b) of any PCT international application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information that is material to patentability as defined in 37 C.F.R. § 1.56 that became available between the filing date of the prior application and the national or PCT international filing date of this application.

<u>PCT/US00/08979</u>	<u>06 April 2000</u>	<u>Pending</u>
<u>(Application Serial No.)</u>	<u>(Filing Date)</u>	<u>(Status: patented, pending, abandoned)</u>

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith: James H. Davis (Reg. No. 40,582), Kenley Hoover (Reg. No. 40,302), Joseph Kenny (Reg. No. 43,710), Jonathan L. Klein (Reg. No. 41,119), Michele Wales (Reg. No. 43,975), and Mark J. Hyman (Reg. No. 46,789) of Human Genome Sciences, Inc. 9410 Key West Avenue, Rockville, Maryland, 20878.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

**Full name of first joint inventor:** Steven M. Ruben

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Residence: 18528 Heritage Hills Drive, Olney, MD 20832 Citizenship: US  
Post Office Address: same as above

**Full name of additional joint inventor:** Jian Ni

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Residence: 5502 Manorfield Road, Rockville, MD 20853 Citizenship: CN  
Post Office Address: same as above

**Full name of additional joint inventor:** George Komatsoulis

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Residence: 9518 Garwood Street, Silver Spring, MD 20901 Citizenship: US  
Post Office Address: same as above

**Full name of additional joint inventor:** Craig A. Rosen

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Residence: 22400 Rolling Hills Lane, Laytonsville, MD 20882 Citizenship: US  
Post Office Address: same as above

**Full name of additional joint inventor:** Daniel R. Soppet

Inventor's signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Residence: 15050 Stillfield Place, Centreville, VA 22020 Citizenship: US  
Post Office Address: same as above

Full name of additional joint inventor: Yanggu Shi

Inventor's signature:  
Residence: 437 West Side Drive, Apt. 102, Gaithersburg, MD 20878 Date: CN  
Post Office Address: same as above Citizenship:

Full name of additional joint inventor: David W. LaFleur

Inventor's signature:  
Residence: 3142 Quesada Street, N.W., Washington, DC 20015 Date: US  
Post Office Address: same as above Citizenship:

Full name of additional joint inventor: Henrik Olsen

Inventor's signature:  
Residence: 182 Kendrick Place, #24, Gaithersburg, MD 20878 Date: DK  
Post Office Address: same as above Citizenship:

Full name of additional joint inventor: Reinhard Ebner

Inventor's signature:  
Residence: 9906 Shelburne Terrace, #316, Gaithersburg, MD 20878 Date: DE  
Post Office Address: same as above Citizenship:

Full name of additional joint inventor: Kimberly A. Florence

Inventor's signature:  
Residence: 12805 Atlantic Avenue, Rockville, MD 20851 Date: US  
Post Office Address: same as above Citizenship:

Full name of additional joint inventor: Paul A. Moore

Inventor's signature:  
Residence: 19005 Leatherbark Drive, Germantown, MD 20874 Date: UK  
Post Office Address: same as above Citizenship:

Full name of additional joint inventor: Charles E. Birse

Inventor's signature:  
Residence: 13822 Saddleview Drive, North Potomac, MD 20878 Date: GB  
Post Office Address: same as above Citizenship:

Full name of additional joint inventor: Paul Young  
Inventor's signature: Paul Young  
Residence: 122 Beckwith Street, Gaithersburg MD 20878 Date: 1/22/01  
Post Office Address: same as above Citizenship: US

10050704-011802

## ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, each of the undersigned, Ruben, Ni, Komatsoulis, Rosen, Soppet, Shi, Lafleur, Olsen, Ebner, Florence, Moore, Birse, and Young hereby sells, assigns, transfers, and sets over to Human Genome Sciences, Inc. ("Assignee") having a place of business at 9410 Key West Avenue, Rockville, MD 20850, its successors, assigns and legal representatives, his/her entire right, title, and interest, including the right to sue and collect for all past, present and future damages, for the United States of America, including all its territories and possessions, and all other countries,

- (a) in and to the invention(s) known as 62 Human Secreted Proteins for which application(s) for patent in the United States of America has (have) been executed by the undersigned on 1/26/01, 1/23/01, 1/26/01, 1/29/01, 1/26/01, 1/26/01, 1/26/01, 1/26/01, 1/26/01, 1/26/01, (also known as United States Application No. 09/684,524, filed October 10, 2000), in any and all applications thereon, in any and all Patent(s) therefor, and
- (b) in any and all applications that claim the benefit of the patent application listed above in part (a), including continuing (continuation, divisional) applications, reissues, extensions, renewals and reexaminations of the patent application or patent therefor listed above in part (a), to the full extent of the term or terms for which patents issue, and
- (c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals, and examinations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

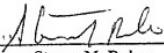
Each of the undersigned further agrees that said Assignee may apply for and receive patent(s) for said invention(s) in its own name; and agrees to execute all papers necessary in connection with said application(s) and any continuing application(s) (continuation, divisional, or continuation-in-part), substitutes, renewals, reissues, reexaminations, extensions, and all other patent applications on all such invention(s), including all rightful oaths, declarations, powers of attorney and other papers; and agrees to execute separate assignments in connection with such application(s) as the Assignee may deem necessary and expedient; and agrees to communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said invention(s) and the history thereof; and agrees to cooperate fully and completely with said Assignee, its successors, assigns, and representatives in securing, maintaining, and enforcing proper patent protection for said invention(s) and for vesting title to said invention(s) and all patent applications and all patents on said invention(s) in Assignee, its successors, assigns and representatives.

Each of the undersigned agrees to execute all papers necessary in connection with any interference that may be declared or litigation that may be instituted concerning the application(s) or patent(s) referred to above and to cooperate fully and completely with the Assignee, its successors, assigns, and representatives in obtaining evidence and going forward with such interference or litigation, including providing testimonial evidence.

Each of the undersigned hereby represents and warrants to Assignee, its successors, assigns and representatives that no assignment, grant, mortgage, license or other right or agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned and that full right to convey the same as expressed herein is possessed by the undersigned.

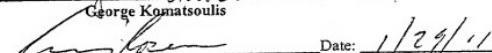
Each of the undersigned hereby grants the power to James H. Davis (Reg. No. 40,582), Kenley Hoover (Reg. No. 40,302), Michele Wales (Reg. No. 43,975), Jonathan Klein (Reg. No. 41,119), Joseph Kenny (Reg. No. 43,710), and Mark J. Hyman (Reg. No. 46,789) of Human Genome Sciences, Inc., 9410 Key West Avenue, Rockville, MD, 20850 to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

IN WITNESS WHEREOF, this Assignment is executed by the undersigned on the date(s) opposite their signature(s):

Inventor's Signature:  Date: 1/26/01  
Steven M. Ruben

Inventor's Signature:  Date: 1/23/01  
Jian Ni

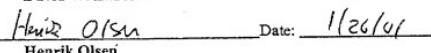
Inventor's Signature:  Date: 1/26/01  
George A. Komatsoulis  
George Komatsoulis

Inventor's Signature:  Date: 1/29/01  
Craig A. Rosen

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Daniel R. Soppet

Inventor's Signature:  Date: 1/26/01  
Yangguo Shi

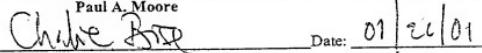
Inventor's Signature:  Date: 1/26/01  
David W. LaFleur

Inventor's Signature:  Date: 1/26/01  
Henrik Olsen

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Reinhard Ebner

Inventor's Signature:  Date: 1/26/01  
Kimberly Florence

Inventor's Signature:  Date: 1/26/01  
Paul A. Moore

Inventor's Signature:  Date: 01/26/01  
Charles E. Birse

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Paul Young

10050704-011802

## ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, each of the undersigned, Ruben, Ni, Komatsoulis, Rosen, Soppet, Shi, LaFleur, Olsen, Ebner, Florence, Moore, Birse, and Young hereby sells, assigns, transfers, and sets over to Human Genome Sciences, Inc. ("Assignee") having a place of business at 9410 Key West Avenue, Rockville, MD 20850, its successors, assigns and legal representatives, his/her entire right, title and interest, including the right to sue and collect for all past, present and future damages, for the United States of America, including all its territories and possessions, and all other countries,

- (a) in and to the invention(s) known as 62 Human Secreted Proteins for which application(s) for patent in the United States of America has (have) been executed by the undersigned on 1/19/01

(also known as United States Application No. 09/684,524, filed October 10, 2000), in any and all applications thereon, in any and all Patent(s) therefor, and

- (b) in any and all applications that claim the benefit of the patent application listed above in part (a), including continuing (continuation, divisional) applications, reissues, extensions, renewals and reexaminations of the patent application or patent therefor listed above in part (a), to the full extent of the term or terms for which patents issue, and
- (c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals, and examinations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

Each of the undersigned further agrees that said Assignee may apply for and receive patent(s) for said invention(s) in its own name; and agrees to execute all papers necessary in connection with said application(s) and any continuing application(s) (continuation, divisional, or continuation-in-part), substitutes, renewals, reissues, reexaminations, extensions, and all other patent applications on all such invention(s), including all rightful oaths, declarations, powers of attorney and other papers; and agrees to execute separate assignments in connection with such application(s) as the Assignee may deem necessary and expedient; and agrees to communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said invention(s) and the history thereof; and agrees to cooperate fully and completely with said Assignee, its successors, assigns, and representatives in securing, maintaining, and enforcing proper patent protection for said invention(s) and for vesting title to said invention(s) and all patent applications and all patents on said invention(s) in Assignee, its successors, assigns and representatives.

Each of the undersigned agrees to execute all papers necessary in connection with any interference that may be declared or litigation that may be instituted concerning the application(s) or patent(s) referred to above and to cooperate fully and completely with the Assignee, its successors, assigns, and representatives in obtaining evidence and going forward with such interference or litigation, including providing testimonial evidence.

Each of the undersigned hereby represents and warrants to Assignee, its successors, assigns and representatives that no assignment, grant, mortgage, license or other right or agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned and that full right to convey the same as expressed herein is possessed by the undersigned.

Each of the undersigned hereby grants the power to James H. Davis (Reg. No. 40,582), Kenley Hoover (Reg. No. 40,302), Michele Wales (Reg. No. 43,975), Jonathan Klein (Reg. No. 41,119), Joseph Kenny (Reg. No. 43,710), and Mark J. Hyman (Reg. No. 46,789) of Human Genome Sciences, Inc., 9410 Key West Avenue, Rockville, MD, 20850 to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

20050704-011802

IN WITNESS WHEREOF, this Assignment is executed by the undersigned on the date(s) opposite their signature(s):

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Steven M. Ruben

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Jian Ni

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
George Komatsoulis

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Craig A. Rosen

Inventor's Signature: Daniel R. Soppet Date: 1/19/01  
Daniel R. Soppet

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Yanggu Shi

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
David W. LaFleur

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Henrik Olsen

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Reinhard Ebner

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Kimberly Florence

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Paul A. Moore

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Charles E. Birse

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Paul Young

208104-015001

## ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, each of the undersigned, Ruben, Ni, Komatsoulis, Rosen, Soppet, Shi, LaFleur, Olsen, Ebner, Florence, Moore, Birse, and Young hereby sells, assigns, transfers, and sets over to Human Genome Sciences, Inc. ("Assignee") having a place of business at 9410 Key West Avenue, Rockville, MD 20850, its successors, assigns and legal representatives, his/her entire right, title and interest, including the right to sue and collect for all past, present and future damages, for the United States of America, including all its territories and possessions, and all other countries,

- (a) in and to the invention(s) known as 62 Human Secreted Proteins for which application(s) for patent in the United States of America has (have) been executed by the undersigned on 01/19/01  
(also known as United States Application No. 09/684,524, filed October 10, 2000), in any and all applications thereon, in any and all Patent(s) therefor, and
- (b) in any and all applications that claim the benefit of the patent application listed above in part (a), including continuing (continuation, divisional) applications, reissues, extensions, renewals and reexaminations of the patent application or patent therefor listed above in part (a), to the full extent of the term or terms for which patents issue, and
- (c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals, and examinations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

Each of the undersigned further agrees that said Assignee may apply for and receive patent(s) for said invention(s) in its own name; and agrees to execute all papers necessary in connection with said application(s) and any continuing application(s) (continuation, divisional, or continuation-in-part), substitutes, renewals, reissues, reexaminations, extensions, and all other patent applications on all such invention(s), including all rightful oaths, declarations, powers of attorney and other papers; and agrees to execute separate assignments in connection with such application(s) as the Assignee may deem necessary and expedient; and agrees to communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said invention(s) and the history thereof; and agrees to cooperate fully and completely with said Assignee, its successors, assigns, and representatives in securing, maintaining, and enforcing proper patent protection for said invention(s) and for vesting title to said invention(s) and all patent applications and all patents on said invention(s) in Assignee, its successors, assigns and representatives.

Each of the undersigned agrees to execute all papers necessary in connection with any interference that may be declared or litigation that may be instituted concerning the application(s) or patent(s) referred to above and to cooperate fully and completely with the Assignee, its successors, assigns, and representatives in obtaining evidence and going forward with such interference or litigation, including providing testimonial evidence.

Each of the undersigned hereby represents and warrants to Assignee, its successors, assigns and representatives that no assignment, grant, mortgage, license or other right or agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned and that full right to convey the same as expressed herein is possessed by the undersigned.

Each of the undersigned hereby grants the power to James H. Davis (Reg. No. 40,582), Kenley Hoover (Reg. No. 40,302), Michele Wales (Reg. No. 43,975), Jonathan Klein (Reg. No. 41,119), Joseph Kenny (Reg. No. 43,710), and Mark J. Hyman (Reg. No. 46,789) of Human Genome Sciences, Inc., 9410 Key West Avenue, Rockville, MD, 20850 to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

100050704-0101802

IN WITNESS WHEREOF, this Assignment is executed by the undersigned on the date(s) opposite their signature(s):

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
**Steven M. Ruben**

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
**Jian Ni**

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
**George Komatsoulis**

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
**Craig A. Rosen**

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
**Daniel R. Soppet**

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
**Yanggu Shi**

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
**David W. LaFleur**

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
**Henrik Olsen**

Inventor's Signature: \_\_\_\_\_ Date: 1/19/01  
**Reinhard Ebner**

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
**Kimberly Florence**

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
**Paul A. Moore**

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
**Charles E. Birse**

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
**Paul Young**

## ASSIGNMENT

For good and valuable consideration, the receipt of which is hereby acknowledged, each of the undersigned, Ruben, Ni, Komatsoulis, Rosen, Soppet, Shi, LaFleur, Olsen, Ebner, Florence, Moore, Birse, and Young hereby sells, assigns, transfers, and sets over to Human Genome Sciences, Inc. ("Assignee") having a place of business at 9410 Key West Avenue, Rockville, MD 20850, its successors, assigns and legal representatives, his/her entire right, title and interest, including the right to sue and collect for all past, present and future damages, for the United States of America, including all its territories and possessions, and all other countries,

- (a) in and to the invention(s) known as 62 Human Secreted Proteins for which application(s) for patent in the United States of America has (have) been executed by the undersigned on 01/22/01

(also known as United States Application No. 09/684,524, filed October 10, 2000), in any and all applications thereon, in any and all Patent(s) therefor, and

- (b) in any and all applications that claim the benefit of the patent application listed above in part (a), including continuing (continuation, divisional) applications, reissues, extensions, renewals and reexaminations of the patent application or patent therefor listed above in part (a), to the full extent of the term or terms for which patents issue, and

- (c) in any and all inventions described in the patent application listed above in part (a), and in any and all forms of intellectual and industrial property protection derivable from such patent application, and that are derivable from any and all continuing applications, reissues, extensions, renewals, and examinations of such patent application, including, without limitation, patents, applications, utility models, inventor's certificates, and designs together with the right to file applications therefor; and including the right to claim the same priority rights from any previously filed applications under the International Agreement for the Protection of Industrial Property, or any other international agreement, or the domestic laws of the country in which any such application is filed, as may be applicable;

all such rights, title and interest to be held and enjoyed by the above-named Assignee, its successors, legal representatives and assigns to the same extent as all such rights, title and interest would have been held and enjoyed by the Assignor had this assignment and sale not been made.

Each of the undersigned further agrees that said Assignee may apply for and receive patent(s) for said invention(s) in its own name; and agrees to execute all papers necessary in connection with said application(s) and any continuing application(s) (continuation, divisional, or continuation-in-part), substitutes, renewals, reissues, reexaminations, extensions, and all other patent applications on all such invention(s), including all rightful oaths, declarations, powers of attorney and other papers; and agrees to execute separate assignments in connection with such application(s) as the Assignee may deem necessary and expedient; and agrees to communicate to said Assignee, its successors, assigns, and representatives all facts known to the undersigned relating to said invention(s) and the history thereof, and agrees to cooperate fully and completely with said Assignee, its successors, assigns, and representatives in securing, maintaining, and enforcing proper patent protection for said invention(s) and for vesting title to said invention(s) and all patent applications and all patents on said invention(s) in Assignee, its successors, assigns and representatives.

Each of the undersigned agrees to execute all papers necessary in connection with any interference that may be declared or litigation that may be instituted concerning the application(s) or patent(s) referred to above and to cooperate fully and completely with the Assignee, its successors, assigns, and representatives in obtaining evidence and going forward with such interference or litigation, including providing testimonial evidence.

Each of the undersigned hereby represents and warrants to Assignee, its successors, assigns and representatives that no assignment, grant, mortgage, license or other right or agreement affecting the rights and property herein conveyed has been or will be made to others by the undersigned and that full right to convey the same as expressed herein is possessed by the undersigned.

Each of the undersigned hereby grants the power to James H. Davis (Reg. No. 40,582), Kenley Hoover (Reg. No. 40,302), Michele Wales (Reg. No. 43,975), Jonathan Klein (Reg. No. 41,119), Joseph Kenny (Reg. No. 43,710), and Mark J. Hyman (Reg. No. 46,789) of Human Genome Sciences, Inc., 9410 Key West Avenue, Rockville, MD, 20850 to insert on this Assignment any further identification which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

2025 RELEASE UNDER E.O. 14176

IN WITNESS WHEREOF, this Assignment is executed by the undersigned on the date(s) opposite their signature(s):

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Steven M. Ruben

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Jian Ni

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
George Komatsoulis

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Craig A. Rosen

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Daniel R. Soppet

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Yanggu Shi

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
David W. LaFleur

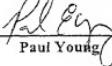
Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Henrik Olsen

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Reinhard Ebner

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Kimberly Florence

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Paul A. Moore

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Charles E. Birse

Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Paul Young